DOCUMENT RESUME

ED 364 510 SP 034 836

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TITLE Women in Academic Medicine: Statistics.
INSTITUTION Association of American Medical Colleges, Washington, D. C.
PUB DATE Jul 93
NOTE 29p.; For 1992 report, see ED 353 244.
PUB TYPE Statistical Data (110)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Admission (School); Comparative Analysis; Ethnic Origins; Females; Higher Education; Medical Education; *Medical School Faculty; *Medical Schools; *Medical Students; *Physicians; Statistical Data; Tenured Faculty; Women Administrators; *Women Faculty; Womens Education

ABSTRACT

This document consists of an interpretive overview and statistical data about women in medicine. Nine tables and three figures are presented. The tables are organized as follows: (1) Women Applicants, Enrollees and Graduates--Selected Years, 1949-50 through 1993-94; (2) Comparative Acceptance Data for Men and Women Applicants, 1974-75 through 1992-93; (3) Acceptance Rates of Applicants by Age and Sex, 1992-93 First-Year Class; (4) Distribution of Women Residents, 1991; (5) Women Faculty by Departments, 1975 and 1993; (6) Tenure Status of Full-Time Basic Science Faculty; (7) Tenure Status of Full-Time Clinical Faculty; (8) Women Chairs of Academic Departments; and (9) Women in Administrative Positions in Medical Schools. Three figures graphically display data on full-time medical school faculty by rank and gender; full-time medical school faculty by degree and gender; and ethnicity of female faculty in U.S. medical schools. (LL)

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ED 364 510

AAMC

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Women in Academic Medicine

Statistics

July 1993

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Women in Academic Medicine

Statistics

July 1993

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AAMC
WOMEN IN ACADEMIC MEDICINE STATISTICS

INTERPRETATIVE OVERVIEW

Applicants and Students

Since its dramatic leap forward from 9.4% in 1969 to 28.3% in 1979, the proportion of women in the applicant pool has continued a slow but steady growth (Table 1). For the year 1992-93, the number of women applicants grew to 15,619 or 41.8% of total. This number represents a 63% increase since 1979, compared to a 20% *decrease* for men applicants.

During most of the 1970's when American higher education was responding with alacrity to the need for Affirmative Action, a higher proportion of women than men medical school applicants received acceptances. However, since 1979, the proportion of men applicants accepted has exceeded the proportion of women accepted by one or more percentage points. In 1993, the gap between these proportions (46.8 compared to 46.5) narrowed to its lowest in 13 years (Table 2). Given the tendency of women to score lower than men on the Medical College Admission Test and to have a slightly lower science GPA, the narrowing of this acceptance gap is especially positive. Looking at acceptance rates by age group, this year for the first time since the 1970's, the acceptance rate for women ages 24-31 exceeded men's rate in this age group (Table 3). In recent years, women's acceptance rate has only exceeded men's at age 35 and above.

While not shown in any table, another feature of interest is that the proportion of women varies by ethnic group. In 1992-3, women accounted for 40% of White and Asian new entrants but 61% of Black and 45% of other underrepresented minorities. Large school-to-school variations are also apparent in the proportion of new entrants who are women, from a low of

23% to a high of 61% (1). In 1992-93, women made up the majority of new entrants at 18 schools.

With regard to *total* enrollment, women were in the majority at 9 schools (1). The total number of women enrolled was 26,038 or 39.4% of the total (Table 1).

Residents

The proportion of women in residency programs has grown from 22% of all residents in 1980 to 30% in 1991. Table 4 shows the recent distribution of women residents across specialties. Because the percent of reporting programs varies by specialty from year to year and because some subspecialties have so few residents, trends must be interpreted with caution. Specialties in which women now comprise at least one-third of all residents include: dermatology, family practice, obstetrics/gynecology, pathology, preventive medicine, and psychiatry.

Of the almost 26,000 women residents in 1991, 35% chose general internal medicine or pediatrics, compared to 26% of men residents (these proportions do not include the combined internal medicine and pediatrics programs). Family practice attracts the next highest proportion of women residents (9% of women, compared to 7% of men). While women are entering all specialties in greater numbers, their choices continue the pattern of a slightly higher proportion of women than men entering primary care. Women's representation in surgery and most surgical subspecialties remains below 15%.

Medical School Faculty

The proportion of faculty who are women has been growing steadily. Between 1970 and

1992, the number of women faculty grew 130% compared to 52% for men. In 1993 women comprised 23.7% of full-time medical school faculty members.

Figure 1 shows that the number of women full professors is still comparatively small--1,622 in 1993 -- that is less than 10% of all women faculty and an average of fewer than 13 per U.S. medical school. Men professors number 17,653 or 31% of all men faculty. About 50% of all women faculty are still to be found at the assistant professor rank, with about 20% at the rank of associate professor. Men faculty are much more evenly spread over these three ranks. These distributions have changed very little since 1980, when 9% of women and 30% were full professors (2).

Figure 2 shows that 55% of women but 69% of men are M.D.s or M.D.-Ph.D.s.; these percentages show a slight narrowing of this gap from 1992. Traditionally a higher proportion of women than men faculty are Ph.D.s or have no doctoral degree.

Figure 3 displays the ethnic breakdown of women faculty. In 1993, 76.7% of women faculty were White, a slight drop from 78% in 1992. The next highest categories are Asian (9.1%) and Black (3.7%). While not shown here, as with students, women are better represented among underrepresented minority faculty than among White faculty.

The proportion of faculty who are women varies a lot by department. Internal medicine has the largest *number* of women faculty, but not surprisingly, pediatrics (35%) and obstetrics/gynecology (29%) have the highest proportions of women faculty (Table 5). This Table also shows the number of women full professors. Compared to internal medicine, only surgery has a lower proportion of women who are full professors.

Tables 6 and 7 compare the tenure-status of women and men faculty in basic science departments and clinical departments, respectively. Of the 126 medical schools, presently seven

do not recognize tenure, and seven others grant tenure only to basic science faculty. At the remainder, the proportion of faculty with tenure and the guarantees of tenure vary tremendously. These caveats aside, it is clear that women comprise a small proportion of tenured faculty. A higher proportion of tenured basic science faculty (13.6%) than clinical faculty (10.5%) are women. At all ranks in the basic sciences, there is higher proportion of women on the non-tenure track than on the tenure track. In clinical departments, while these proportions are the same at the ranks of professor and instructor, at the associate and assistant professor ranks, again a higher proportion of women are found on non-tenure than tenure track. With regard to total numbers of tenured full professors, there are 1099 women and 12,416 men; that is, 6% of all women but 22% of all men faculty have achieved this highest, most secure rank.

While revealing areas of progress and of special concern, the above data are but snapshots in time. Only a cohort analysis can compare the progress of men and women faculty. The rank of all faculty who were first appointed as full-time faculty in 1976 was ascertained in 1991: in 15 years, 10% of women but 22% of men had attained the rank of full professor (3). An analysis of a later cohort is planned.

Medical School Administrators

As Table 8 shows, approximately 92 women currently chair a medical school department, representing about 4% of all chairs (this includes interim and acting chairs and is an estimate based on counts of likely first-names scanned from AAMC's annual *Directory of American Medical Education*). Of these 92, 46 are in clinical departments. In 1983, 61 women academic chairs were counted, including 30 clinical chairs, representing approximately 2.5% of all chairs. Thus, while the number of women chairs remains low, it is steadily growing. Microbiology,

pediatrics and family/community medicine make the strongest showing. Surgery and internal medicine are the only major clinical departments with no women chairs.

Table 9 shows that at latest count (1991), about 114 women were associate deans and 102 women, assistant deans. Presently, four women are serving as medical school deans, though two are interim. The two full deans are: Dr. Nancy Gary at the Uniformed Services University of the Health Sciences School of Medicine and Dr. Nilda Candelario, University of Puerto Rico School of Medicine. Dr. Paula Stillman will become dean of Eastern Virginia Medical School in October.

REFERENCES

1. *Medical School Admission Requirements, 1994-95*. Washington DC: AAMC, 1993 (see Table 3A)

2. Whiting, B., et al. *Participation of Women and Minorities on U.S. Medical School Faculties, 1980-1990*. Washington DC, 1992.

3. Bickel, J. and Whiting, B. Comparing the Representation and Promotion of Men and Women Faculty at U.S. Medical Schools. *Academic Medicine*, 66:497, 1991.

TABLE 1

WOMEN APPLICANTS, ENROLLEES & GRADUATES--SELECTED YEARS 1949-1950 THROUGH 1993-94

Year of Matriculation	Applicants		First-Year Enrollment		Total Enrolled		Graduates	
	No.	%	No.	%	No.	%	No.	%
1949-50	1,390	5.7	387	5.5	1,806	7.2	595	10.7
1959-60	1,026	6.9	494	6.0	1,710	5.7	405	5.7
1964-65	1,731	9.0	786	8.9	2,503	7.7	503	6.8
1969-70	2,289	9.4	952	9.2	3,390	9.0	700	8.4
1974-75	8,712	20.4	3,260	22.3	9,786	18.1	1,706	13.4
1979-80	10,222	28.3	4,713	27.8	16,141	25.3	3,497	23.1
1984-85	12,476	34.7	5,715	33.6	21,316	31.8	4,904	30.1
1985-86	11,562	35.2	5,800	34.2	21,650	32.5	4,957	30.8
1986-87	11,267	36.0	5,894	35.0	22,100	33.4	5,107	32.3
1987-88	10,411	37.0	6,098	36.5	22,544	34.3	5,215	32.8
1988-89	10,264	38.4	6,254	37.1	22,985	35.2	5,221	33.4
1989-90	10,546	39.2	6,414	38.3	23,513	36.2	5,231	34.5
1990-91	11,392	40.2	6,550	38.8	24,286	37.3	5,553	35.9
1991-92	13,700	41.1	6,804	39.9	24,962	38.1	5,550	36.1
1992-93	15,619	41.8	6,772	41.6	26,038	39.4	NA	
1993-94 (est.)	17,776	41.8						

Source: AAMC Section for Student Services

TABLE 2

COMPARATIVE ACCEPTANCE DATA FOR MEN AND WOMEN APPLICANTS
1974-1975 THROUGH 1992-93

Year of Matriculation	No. of Applicants		No. Accepted		% Accepted	
	Men	Women	Men	Women	Men	Women
1974-75	33,912	8,712	11,674	3,392	34.4	38.9
1975-76	32,515	9,575	11,619	3,639	35.7	38.0
1976-77	31,911	10,244	11,852	3,922	37.1	38.3
1977-78	30,374	10,195	11,896	4,081	39.2	40.0
1978-79	27,075	9,561	12,352	4,175	45.6	43.7
1979-80	25,919	10,222	12,156	4,730	46.9	46.3
1980-81	25,436	10,664	12,196	4,950	47.9	46.4
1981-82	25,054	11,673	11,953	5,333	47.7	45.7
1982-83	24,045	11,685	11,843	5,451	49.3	46.7
1983-84	23,239	11,961	11,577	5,632	49.8	47.1
1984-85	23,468	12,476	11,463	5,731	48.8	45.9
1985-86	21,331	11,562	11,370	5,858	53.3	50.7
1986-87	20,056	11,267	11,159	5,933	55.6	52.7
1987-88	17,712	10,411	10,822	6,205	61.1	59.6
1988-89	16,457	10,264	10,785	6,323	65.5	61.6
1989-90	16,369	10,546	10,522	6,453	64.3	61.2
1990-91	17,458	11,785	10,550	6,656	60.4	56.5
1991-92	19,601	13,700	10,493	6,943	53.5	50.6
1992-93	21,791	15,619	10,207	7,257	46.8	46.5

Source: AAMC Section for Student Services

TABLE 3

ACCEPTANCE RATES OF APPLICANTS BY AGE AND SEX

1992-93 FIRST-YEAR CLASS

	Men			Women		
Age	Number of Applicants	Percent	Percent Accepted	Number of Applicants	Percent	Percent Accepted
20 & under	396	1.8	75.8	398	2.5	67.6
21 - 23	12,505	57.4	53.9	9,163	58.7	51.4
24 - 27	5,340	24.5	37.8	3,478	22.3	40.3
28 - 31	1,984	9.1	34.3	1,303	8.3	35.9
32 - 34	731	3.4	34.5	500	3.2	32.6
35 - 37	410	1.9	27.6	381	2.4	36.0
38 and Over	425	2.0	25.4	396	2.5	26.8
Total	21,791	100.0	46.8	15,619	100.0	46.5

Source: ***AAMC Medical School Admission Requirements, 1994-95,*** p.33.

TABLE 4

DISTRIBUTION OF WOMEN RESIDENTS, 1991

Specialty	Number	% of All Women Residents	Women Residents as % of all Residents		
			1988	'89	'91
Allergy & Immunology	79	.3	31.7	27.3	26.5
Anesthesiology	1,148	4.5	19.2	20.3	22.0
Critical Care	8	*	___	___	12.1
Colon & Rectal Surgery	5	*	2.3	6.8	9.8
Dermatology	426	1.6	44.4	46.4	49.6
Dermatopathology	13	*	33.3	62.5	39.4
Emergency Medicine	470	1.8	23.8	24.5	25.1
Family Practice	2,394	9.2	29.9	31.7	36.2
Geriatric Medicine	8	*	___	___	47.1
Internal Medicine	5,602	21.6	26.0	27.4	30.0
Internal Medicine Subs.	1,457	5.6	16.4	19.4	21.1
Neurological Surgery	52	.2	7.9	7.3	7.3
Neurology	348	1.3	26.9	27.1	25.6
Child Neurology	31	*	___	___	25.8
Nuclear Medicine	60	.2	13.7	22.6	30.2
Obstetrics & Gynecology	2,177	8.3	46.0	44.2	48.1
Ob/Gyn Subs.	82	.3	___	___	3.5
Ophthalmology	325	1.2	21.7	22.6	21.1
Orthopedic Surgery	159	.6	5.4	5.0	5.8
Orthopedic Subs.	9	*	___	___	9.6
Otolaryngology	153	.6	12.4	13.6	14.4

Specialty	Number	% of All Women Residents	Women Residents as % of all Residents 1988	'89	'91
Pathology	947	3.6	36.1	38.0	38.9
Pathology Subs.	53	.2	22.3	24.2	31.6
Pediatrics	3,520	13.5	49.0	50.3	56.5
Pediatrics Subs.	432	1.6	36.1	33.9	39.4
Physical Medicine & Rehabilitation	302	1.1	26.6	30.1	33.0
Plastic Surgery	57	.2	12.0	13.4	13.8
Preventive Medicine	51	.2	33.4	41.2	40.5
Preventive Medicine Subs.	79	.3	___	___	19.7
Psychiatry	2,111	8.1	38.7	40.6	43.0
Child Psychiatry	321	1.2	50.9	50.2	48.3
Radiation Oncology	126	2.0	20.1	25.2	27.9
Radiology, Diagnostic	988	4.0	24.1	24.7	25.7
Radiology Diagnostic Subs.	35	.1	14.2	7.0	21.4
Surgery	1,142	4.4	12.5	13.0	14.8
Surgery Subs.	15	*	___	___	8.7
Thoracic Surgery	7	.2	1.0	2.0	2.3
Urology	59	2	5.0	5.3	5.8
Transitional Year	393	2.0	23.3	21.2	27.3
Combined Specialties Programs	277	1.0	___	___	39.5
TOTAL	25,923	100.0	27.0	28.0	30.1

* Less Than .1%

Source: *JAMA*: 26:937-9, August 21, 1991.

TABLE 5

WOMEN FACULTY BY DEPARTMENTS, 1975 & 1993

	# Women 1975	% Women 1975	# Women 1993	% Women 1993	# Women Full Professors
Basic Sciences					
Anatomy	244	15.5	380	22.4	75
Biochemistry	157	10.4	410	18.9	87
Microbiology	189	15.7	392	23.4	85
Pathology	468	17.7	1,090	25.0	154
Pharmacology	110	10.3	277	17.8	67
Physiology	162	11.5	298	16.2	64
Other Basic Sciences Department	NA		329	23.3	55
Clinical					
Anesthesiology	233	19.1	926	25.2	35
Dermatology	28	10.4	124	25.2	14
Emergency Medicine	NA		75	19.4	1
Family Practice	89	14.8	531	28.6	27
Internal Medicine	630	8.7	3,409	20.3	235
Neurology	118	12.3	458	20.6	35
Obstetrics/Gynecology	183	13.4	955	31.3	50
Ophthalmology	60	9.2	267	19.6	23
Orthopedic Surgery	12	3.6	112	10.5	5
Otolaryngology	51	12.7	151	20.0	14
Pediatrics	917	27.7	2,852	37.2	257
Physical Medicine	164	29.2	274	38.5	14
Psychiatry	852	19.1	1,846	29.8	113
Public Health	288	24.5	456	35.1	41

	# Women 1975	% Women 1975	# Women 1993	% Women 1993	# Women Full Professors
Radiology	252	10.9	931	19.7	84
Surgery	141	3.9	632	10.0	46
Other Clinical Department	NA		20	25.6	2
Allied Health Depts.	NA		188	41.2	12
Other Departments	NA		299	32.7	16
TOTAL	6,119	14.5%	17,682	23.7%	1,616

Source: AAMC Faculty Roster

TABLE 6

TENURE STATUS OF FULL-TIME BASIC SCIENCE FACULTY

	Tenured		On Tenure Track		Non-Tenure Track		No Tenure Offered By School	
	Men	Women	Men	Women	Men	Women	Men	Women
Professor	3,869 (89.8)	438 (10.2)	112 (86.2)	18 (13.8)	282 (84.9)	50 (15.1)	172 (91.5)	16 (8.5)
Associate Professor	1,729 (80.2)	426 (19.8)	407 (76.8)	123 (23.2)	430 (72.1)	166 (27.9)	124 (82.7)	26 (17.3)
Assistant Professor	79 (73.1)	29 (26.9)	1,019 (70.7)	422 (29.3)	874 (66.3)	444 (33.7)	90 (65.7)	47 (34.3)
Instructor	1(100.0)	0 (0.0)	36 (59.0)	25 (41.0)	255 (60.6)	166 (39.4)	17 (65.4)	9 (34.6)
TOTAL*	5,678 (86.4)	895 (13.6)	1,575 (82.1)	343 (17.9)	2,004 (68.2)	936 (31.8)	403 (80.1)	100 (19.9)

Source: AAMC Faculty Roster

*Does not add perfectly because does not include "other" or "missing" data.

TABLE 7

TENURE STATUS OF FULL-TIME CLINICAL FACULTY

	Tenured		On Tenure Track		Non-Tenure Track		No Tenure Offered By School		Clinical Faculty Not Eligible for Tenure at this School	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Professor	8,547 (92.8)	661 (7.2)	540 (90.6)	56 (9.4)	2,244 (90.7)	231 (9.3)	545 (95.4)	26 (4.6)	328 (93.7)	22 (6.3)
Associate Professor	3,711 (84.2)	695 (15.8)	1,853 (82.0)	407 (18.0)	4,102 (78.9)	1,096 (21.1)	536 (85.1)	94 (14.9)	345 (88.5)	45 (11.5)
Assistant Professor	270 (72.2)	104 (27.8)	5,251 (72.7)	1,971 (27.3)	7,033 (66.9)	3,475 (33.1)	828 (76.0)	261 (24.0)	724 (75.6)	234 (24.4)
Instructor	1 (16.7)	5 (83.3)	457 (56.6)	351 (43.4)	2,470 (57.5)	1,823 (42.5)	207 (67.9)	98 (32.1)	159 (66.0)	82 (34.0)
TOTAL*	12,533 (89.5)	1,465 (10.5)	8,101 (74.4)	2,785 (25.6)	15,849 (70.5)	6,625 (29.5)	2,116 (81.5)	479 (18.5)	1,556 (80.2)	383 (19.8)

Source: AAMC Faculty Roster

*Does not add perfectly because does not include "other" or "missing" data.

TABLE 8

WOMEN CHAIRS OF ACADEMIC DEPARTMENTS

Of the 92 women chairing academic departments, 7 are serving in an acting or interim capacity.

Basic Sciences -- 43			
Anatomy	4	Pathology	5
Biochemistry	6	Pharmacology	5
Microbiology	10	Physiology & Biophysics	4
Neurosciences	1	Other	8
Clinical Sciences -- 46			
Anesthesiology	4	Obstetrics/ Gynecology	6
Dermatology	2	Pediatrics	11
Emergency Medicine	1	Psychiatry	2
Family/Community Medicine	9	Radiology	6
Neurology	2	Rehab./Physical Medicine	3
Interdisciplinary -- 3			

Source: *AAMC Directory of American Medical Education, 1991-92* (these numbers are based on a count of likely first-names and amended as up-dated information becomes available, and therefore are approximate).

TABLE 9

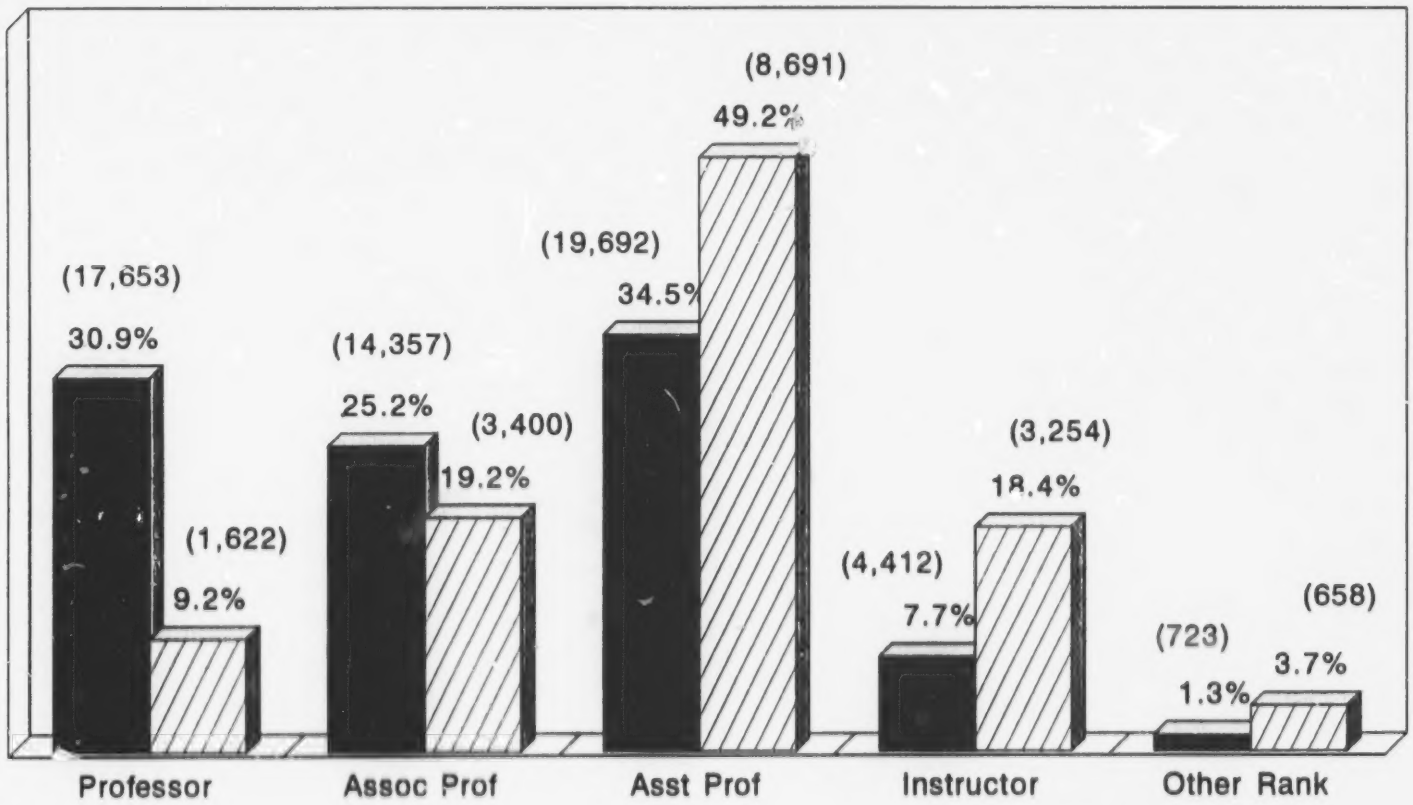
WOMEN IN ADMINISTRATIVE POSITIONS IN MEDICAL SCHOOLS

	1975		1986		1991	
	Total	Women	Total	Women	Total	Women
Deans	119	0	127	2	126	4*
% Women				1.6		4%
Senior Associate or University-Level Deans	NA		NA		NA	10
% Women						NA
Associate Deans	382	13	664	64	772	114
% Women		3.4		9.6		14.7%
Assistant Deans	249	29	370	75	405	102
% Women		11.7		20.3		25.1%

Source: AAMC Directory of American Medical Education, 1991-92 (these numbers are the result of a count of likely first-names and therefore are quite approximate)

*As of July 1993 (includes two interim deans); a fifth woman begins a deanship in October.

Fig. 1
Full-Time Medical School Faculty
By Rank & Gender



M - 57,049 / F - 17,682

Rank Missing: Male - .4% (212); Female - .3% (57)

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July 1993

Fig. 2
Full-Time Medical School Faculty
By Degree & Gender

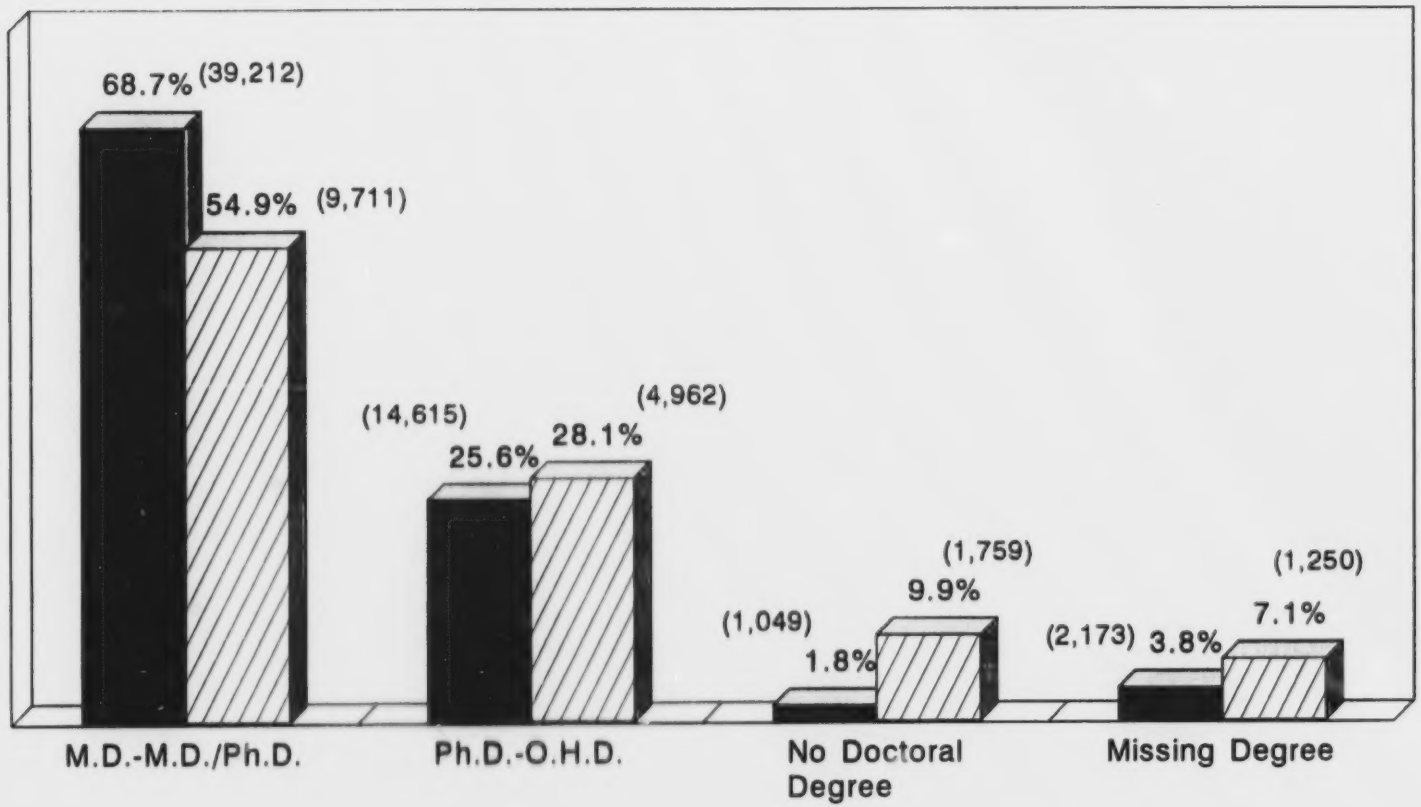

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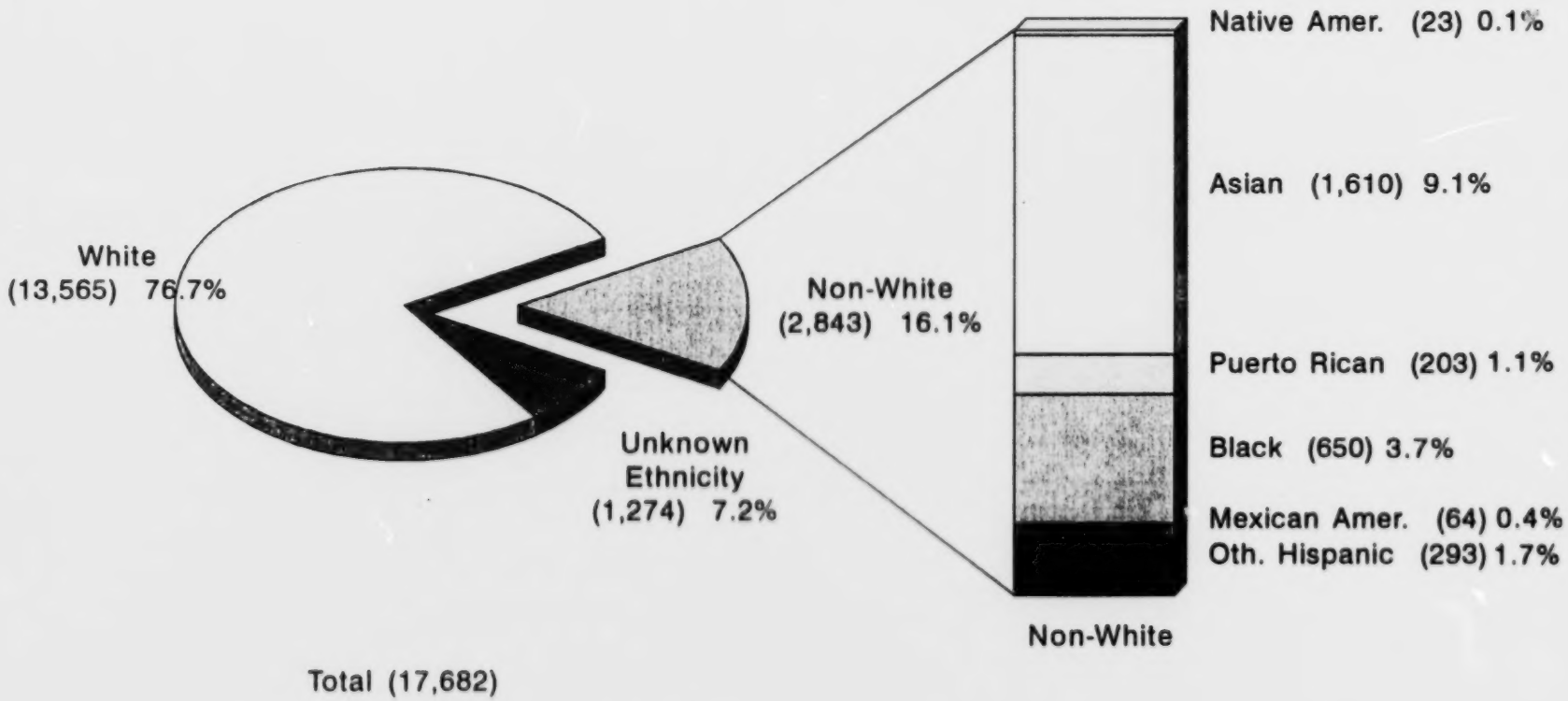
Fig. 3

Ethnicity of Female Faculty in U.S. Medical Schools



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